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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/738,464	12/17/2003	Werner Jumpertz	71045	9590

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EXAMINER	
WANG, JIN CHENG	
ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/738,464	JUMPERTZ, WERNER	
	Examiner	Art Unit	
	Jin-Cheng Wang	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendments

Applicant's submission on 8/10/2005 has been entered. Claims 1-4, 6-7, 9-14, 17-18 have been amended. Claims 1-18 are pending in the present application.

Response to Arguments

Applicant's arguments filed August 10, 2005 have been fully considered but are moot in view of the ground(s) of rejection based on Warner et al. U.S. Patent No. 6,255,650 (hereinafter Warner) in view of Ronzani et al. U.S. Patent No. 6,421,031 (hereinafter Ronzani).

Ronzani discloses the claim limitation of "means for determining an instantaneous position of the device user by evaluating the image signals sent by said image recording means by pattern recognition of the image falling near or about the eyes of the device user and the stored building topography data."

For example, Ronzani discloses in Figs. 1-2, 37-38 and column 18-19 a head mounted display device for a personal firefighter in which GPS sensors along with **the building schematics** (i.e., the building map images) by the CPU to provide the firefighter and the truck with the firefighter's exact position in the building. In addition, the CPU can calculate and direct the firefighter to all exits from the building and the firefighter's paths into the building are **recorded in the local data storage** so the firefighter can be directed out of the building following a path as determined/recorded/recognized as the firefighter entered the building and the directions for back-tracking or otherwise exiting the building are **pictorially** displayed on the display panel (i.e., images being displayed) so the firefighter can exit even **in low or no**

visibility situations. Moreover, infrared sensor permits the firefighter to view the surrounding through heavy smoke and data from the infrared sensor can aid the firefighter in located trapped fire victims. It is well known to one of the ordinary skill in the art that the entrance paths or the exit paths in a building are formed by a plurality of images of the building so that the fire fighter can see the displayed images along the path and figure out how to enter or exit accordingly. Ronzani discloses the recorded image data *along the firefighter's entrance paths* and the image signals captured by the GPS sensors as means for determining the firefighter's exact position. The entrance or exit paths in the building require evaluating a plurality of the images in the building to be recorded and subsequently presented to a fire fighter. This determination of the exit path requires recognizing the images forming an exit path in a complex building among the images of the building schematics as recorded on the local data storage together with the aid of the image signals or GPS position signals recorded by a variety of sensors including the GPS sensors. Therefore, Ronzani teaches **a pattern recognition of the images along the firefighter's entrance or exit path (i.e., the image falling near the device user upon entrance of the fire fighter to the building so that the exit path can be determined) by recognizing the images along the path among the large number of the images from the building map/schematics combined with the GPS information to figure out the exact location as well as the exit paths for firefighters**.

Moreover, Ronzani discloses in column 19 in another application of the head-mounted display device allowing for the information exchange between the police officer and the central station wherein the police officer is equipped with the external sensors with the night vision and magnetic or optical reader which can read driver licenses or other identification and provide read

information (image signals) to the police station for verification and a warrants check. The result of the pattern recognition of the driver licenses and the image data stored in the police station is sent back to the police office along with the police officer's instantaneous position. Therefore, the image falling near or about the eyes of the police officer related to the driver licenses or other identification is recorded by the night vision sensors and sent to the police station for verification wherein the verification requires pattern recognition of the image of the driver licenses. Moreover, the exact position of the police officer is determined from the GPS data along with the building schematics and city maps and thus the exact position of the police officer is determined by the pattern recognition of the stored building schematics. Ronzani teaches evaluating the image signals by pattern recognition of the image read by the sensor as well as evaluating the GPS signals by pattern recognition of the stored building schematics. Thus, Ronzani discloses determining the exact position of the device user by directly or indirectly or simultaneously evaluating the image signals captured by the sensors by pattern recognition of the image read by the sensor as well as using the GPS signals captured by the sensors by pattern recognition of the stored building schematics.

It would have been obvious to have incorporated Ronzani's GPS sensors and CPU into Warner's device because Warner suggests that his gas mask or respirator device may include the provision of remote wireless monitoring via an optional pocket-sized belt-worn transmitter operatively connected to an input/out port of the microprocessor via suitable means and therefore allowing for the communication between a central deployment station such as a truck of Ronzani, enabling data and image communication from the central dispatch unit with Warner's respirator device (Ronzani column 18, lines 20-67 and column 19, lines 1-50).

Moreover, Warner further discloses identifying avoidance portions of the building and mapping the avoidance portions of the electronic image signal to the color image in a color range that is visually distinct from all other portions of the color image (Warner 12, lines 63-67 and column 13, lines 1-20) and therefore Warner discloses determining a plurality of positions such as the avoidance zone in the burning building for the device user by identifying the image signals sent by the camera to allow for a rescue operation to be performed (column 11, lines 11-50).

One of the ordinary skill in the art would have been motivated to do this to determine the firefighter's exact position in the building and to figure out the exit path for the firefighter (Ronzani column 18, lines 20-67 and column 19, lines 1-50) as well as to figure out the dangerous zones that the firefighter should tacitly avoid (Warner 12, lines 63-67 and column 13, lines 1-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warner et al. U.S. Patent No. 6,255,650 (hereinafter Warner) in view of Ronzani et al. U.S. Patent No. 6,421,031 (hereinafter Ronzani).

Re Claims 1, 9 and 11:

Warner teaches a device for monitoring the deployment of respirator users, the device comprising:

An image recording means by which an image falling near or about the eyes of the device user can be recorded (*Warner discloses a digital memory 22 for buffering digital scenery data obtained by the optimal engine 18; column 6, lines 39-47 and column 8, lines 53-67; wherein RGB images are captured by the optical device, viewed on LCD 30 or LCD 32 with the scenery image being falling near or about the eyes of the respirator user within the user's arm reach, a distant object or an object a few feet in front of the user about the eyes of the user; see column 10-12*);

A display (*Warner discloses that RGB images are captured by the optical device, viewed on LCD 30 or LCD 32 with the scenery image being falling near or about the eyes of the respirator user within the user's arm reach, a distant object or an object a few feet in front of the user about the eyes of the user; see column 10-12*);

A signal processor for evaluating the image signals recorded by said image recording means (*a microprocessor for processing/evaluating the scenery image viewed by the fire fighter as recorded by the camera 37; column 6, lines 61-67; column 7, lines 1-20 and column 8, lines 53-67, column 9, lines 1-28; column 10, lines 50-67 and column 11, lines 1-4, column 12, lines 53-67 and column 13, lines 1-25*);

An input means for receiving data (*a camera 37 for receiving the image signals; column 12, lines 13-29*);

A storage medium for storing building topography data (Warner discloses storing image data related to the building topography with zone identification as seen by the fire fighter in a storage medium such as the memory buffer 22; see column 8, lines 53-67 and column 9, lines 1-28).

Warner is silent to the claim limitation of "means for determining an instantaneous position of the device user by evaluating the image signals sent by said image recording means by pattern recognition of the image falling near or about the eyes of the device user and the stored building topography data."

However, Ronzani discloses the claim limitation of "means for determining an instantaneous position of the device user by evaluating the image signals sent by said image recording means by pattern recognition of the image falling near or about the eyes of the device user and the stored building topography data."

For example, Ronzani discloses in Figs. 1-2, 37-38 and column 18-19 a head mounted display device for a personal firefighter in which GPS sensors along with **the building schematics** (i.e., the building map images) by the CPU to provide the firefighter and the truck with the firefighter's exact position in the building. In addition, the CPU can calculate and direct the firefighter to all exits from the building and the firefighter's paths into the building are **recorded in the local data storage** so the firefighter can be directed out of the building following a path as determined/recorded/recognized as the firefighter entered the building and the directions for back-tracking or otherwise exiting the building are **pictorially** displayed on the display panel (i.e., images being displayed) so the firefighter can exit even **in low or no visibility situations**. Moreover, infrared sensor permits the firefighter to view the surrounding

through heavy smoke and data from the infrared sensor can aid the firefighter in located trapped fire victims. It is well known to one of the ordinary skill in the art that the entrance paths or the exit paths in a building are formed by a plurality of images of the building so that the fire fighter can see the displayed images along the path and figure out how to enter or exit accordingly. Ronzani discloses the recorded image data *along the firefighter's entrance paths* and the image signals captured by the GPS sensors as means for determining the firefighter's exact position. The entrance or exit paths in the building require evaluating a plurality of the images in the building to be recorded and subsequently presented to a fire fighter. This determination of the exit path requires recognizing the images forming an exit path in a complex building among the images of the building schematics as recorded on the local data storage together with the aid of the image signals or GPS position signals recorded by a variety of sensors including the GPS sensors. Therefore, Ronzani teaches **a pattern recognition of the images along the firefighter's entrance or exit path (i.e., the image falling near the device user upon entrance of the fire fighter to the building so that the exit path can be determined) by recognizing the images along the path among the large number of the images from the building map/schematics combined with the GPS information to figure out the exact location as well as the exit paths for firefighters**.

Moreover, Ronzani discloses in column 19 in another application of the head-mounted display device allowing for the information exchange between the police officer and the central station wherein the police officer is equipped with the external sensors with the night vision and magnetic or optical reader which can read driver licenses or other identification and provide read information (image signals) to the police station for verification and a warrants check. The result

of the pattern recognition of the driver licenses and the image data stored in the police station is sent back to the police office along with the police officer's instantaneous position. Therefore, the image falling near or about the eyes of the police officer related to the driver licenses or other identification is recorded by the night vision sensors and sent to the police station for verification wherein the verification requires pattern recognition of the image of the driver licenses. Moreover, the exact position of the police officer is determined from the GPS data along with the building schematics and city maps and thus the exact position of the police officer is determined by the pattern recognition of the stored building schematics. Ronzani teaches evaluating the image signals by pattern recognition of the image read by the sensor as well as evaluating the GPS signals by pattern recognition of the stored building schematics. Thus, Ronzani discloses determining the exact position of the device user by directly or indirectly or simultaneously evaluating the image signals captured by the sensors by pattern recognition of the image read by the sensor as well as using the GPS signals captured by the sensors by pattern recognition of the stored building schematics.

It would have been obvious to have incorporated Ronzani's GPS sensors and CPU into Warner's device because Warner suggests that his gas mask or respirator device may include the provision of remote wireless monitoring via an optional pocket-sized belt-worn transmitter operatively connected to an input/out port of the microprocessor via suitable means and therefore allowing for the communication between a central deployment station such as a truck of Ronzani, enabling data and image communication from the central dispatch unit with Warner's respirator device (Ronzani column 18, lines 20-67 and column 19, lines 1-50). Moreover, Warner further discloses identifying avoidance portions of the building and mapping

the avoidance portions of the electronic image signal to the color image in a color range that is visually distinct from all other portions of the color image (Warner 12, lines 63-67 and column 13, lines 1-20) and therefore Warner discloses determining a plurality of positions such as the avoidance zone in the burning building for the device user by identifying the image signals sent by the camera to allow for a rescue operation to be performed (column 11, lines 11-50).

One of the ordinary skill in the art would have been motivated to do this to determine the firefighter's exact position in the building and to figure out the exit path for the firefighter (Ronzani column 18, lines 20-67 and column 19, lines 1-50) as well as to figure out the dangerous zones that the firefighter should tacitly avoid (Warner 12, lines 63-67 and column 13, lines 1-20).

Re Claims 2-4, 12-14:

Warner and Ronzani further disclose a plurality of input medium including a variety of sensors and cameras for recording the image scene, a magnetic and optical reader for reading/scanning driver licenses or other identification, a communication module including a cellular telephone connection for transmitting and receiving digital audio, video and data signals (Ronzani column 17-19) and a memory buffer for recording the image signals (Warner column 8, lines 47-67).

Re Claims 5 and 15:

Warner and Ronzani further disclose a LCD display for providing an output of image signals (Warner column 10, lines 21-32 and Ronzani column 17, lines 65-67 and column 18, lines 59-62).

Re Claims 6 and 16:

Warner and Ronzani further disclose a gas mask (Warner column 8, lines 14-32 and Ronzani column 19, lines 5-19).

Re Claims 7, 10 and 17:

Warner and Ronzani further disclose the burning building's schematics including the map and fixed paths and points such as stairs, columns and window openings (Ronzani column 18, lines 47-62).

Re Claims 8 and 18:

Warner and Ronzani further disclose tranmistting the position data and image signals to a deployment center such as the truck, or the firehouse (Ronzani column 18, lines 20-67 and column 19, lines 1-50; Warner 12, lines 63-67 and column 13, lines 1-20).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw

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